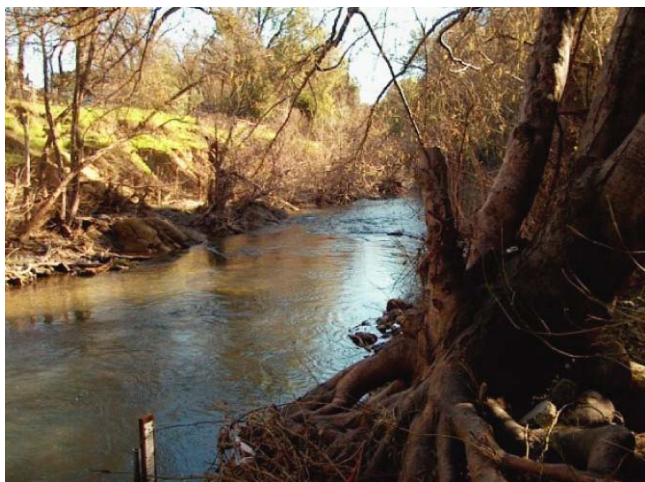


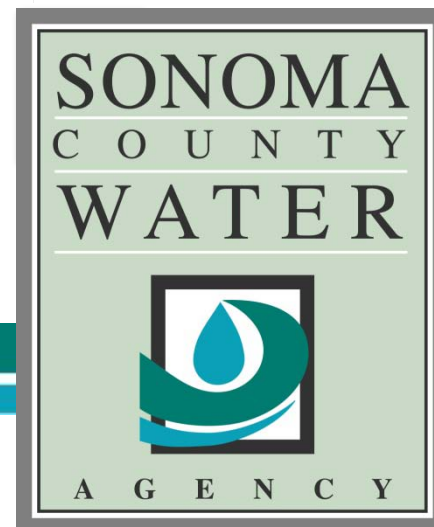


# Sonoma Valley Groundwater Management Program

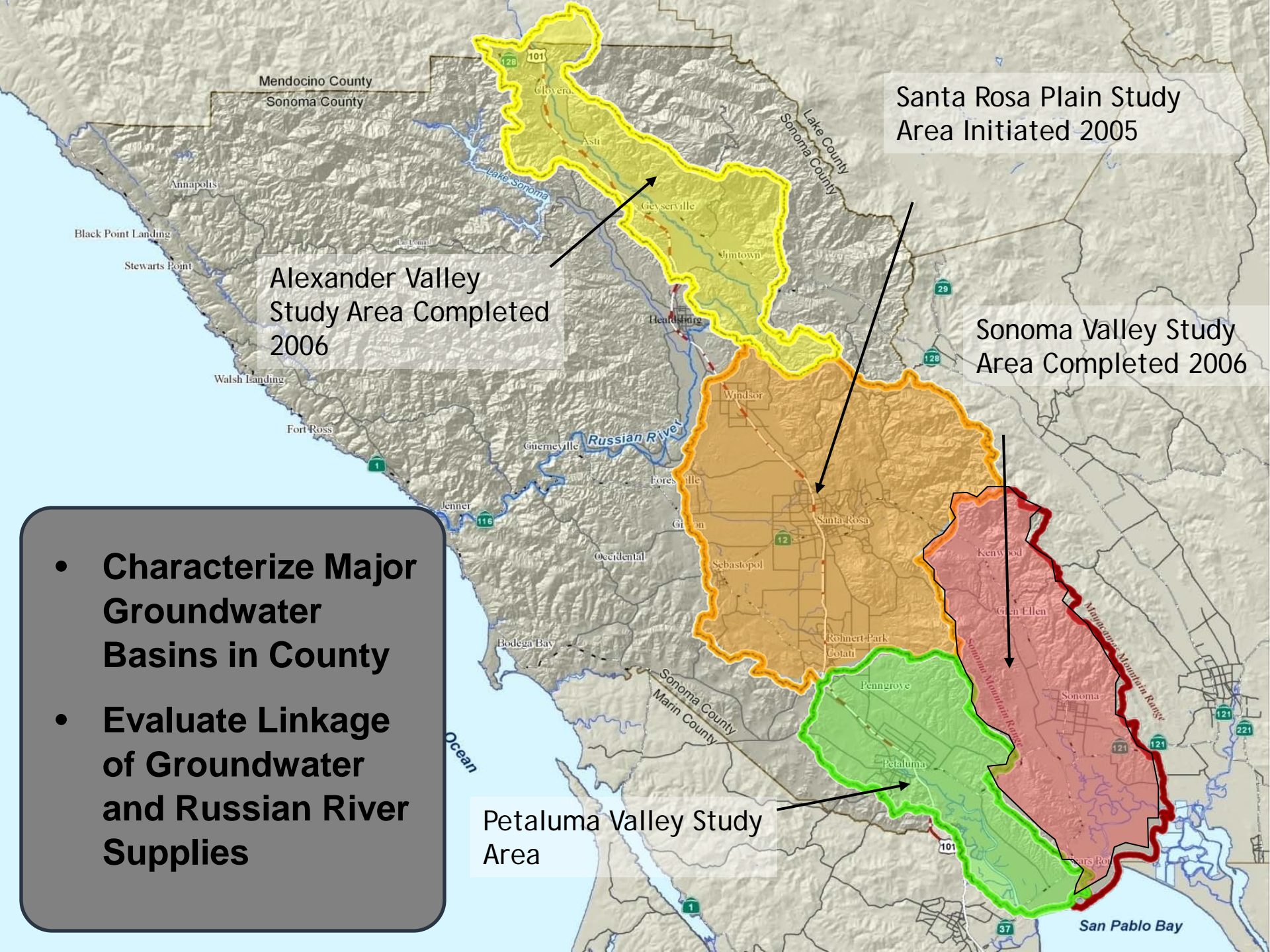


**Jay Jasperse & Marcus Trotta**  
**Sonoma County Water Agency**  
**September 28, 2010**

[www.sonomacountywater.org](http://www.sonomacountywater.org)



- Characterize Major Groundwater Basins in County
- Evaluate Linkage of Groundwater and Russian River Supplies



# Agency/USGS Sonoma Valley Groundwater Study



In cooperation with the  
**SONOMA COUNTY WATER AGENCY**

**Geohydrological Characterization, Water-Chemistry,  
and Ground-Water Flow Simulation Model of the  
Sonoma Valley Area, Sonoma County, California**



Scientific Investigations Report 2006-5092

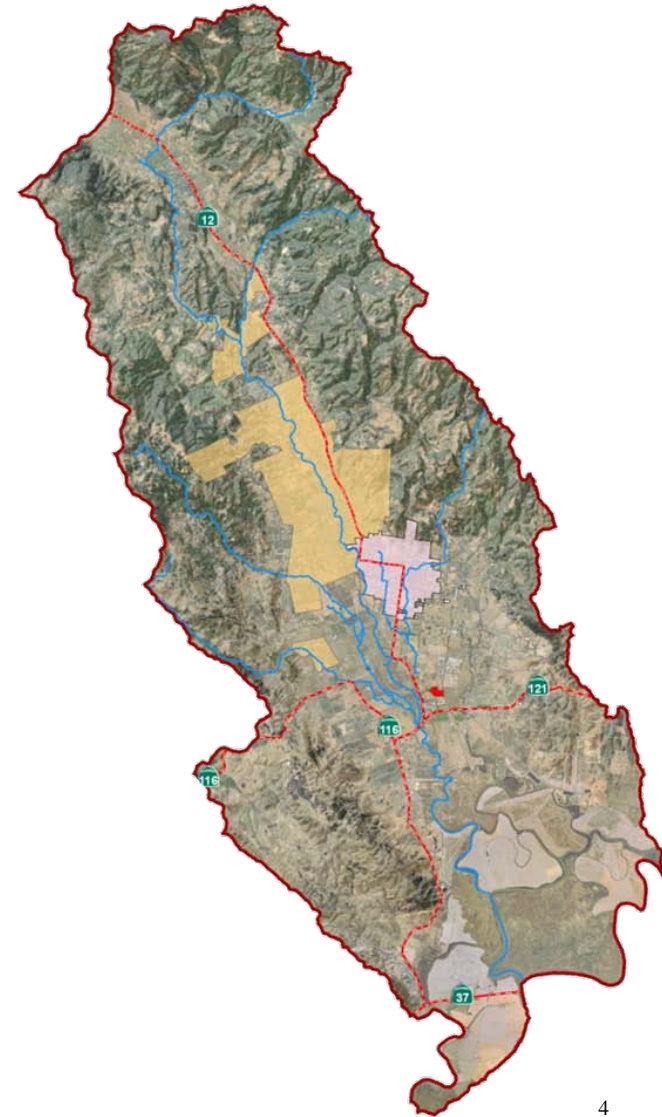
U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

## Key Findings:

- Increased pumping between 1975-2000 (6,000 to 8,500 acre-ft/year)
- Localized decline of groundwater levels
- 17,000 acre-ft decline groundwater storage
- Salinity issues in southern part of Valley
- Numerical Model - Evaluate data gaps & simulate future conditions

# Overview of Sonoma Valley Groundwater Management Program

- **Convened Stakeholder Group in June 2006**
  - Agricultural alliances, environmental organizations, water purveyors, and residential groundwater users
- **Groundwater Management Plan Adopted by Sonoma County Water Agency, City of Sonoma & Valley of the Moon Water District in Late 2007**
  - Non-Regulatory and Collaborative Process
  - Letters of Support and Endorsement received from Mission Highlands Mutual Water Company, Sonoma County Water Coalition, Sonoma Ecology Center, and the Sonoma Valley Vintners & Growers Alliance
- **Third Year of Implementation**



# Groundwater Management Plan

## Goal and Component Actions

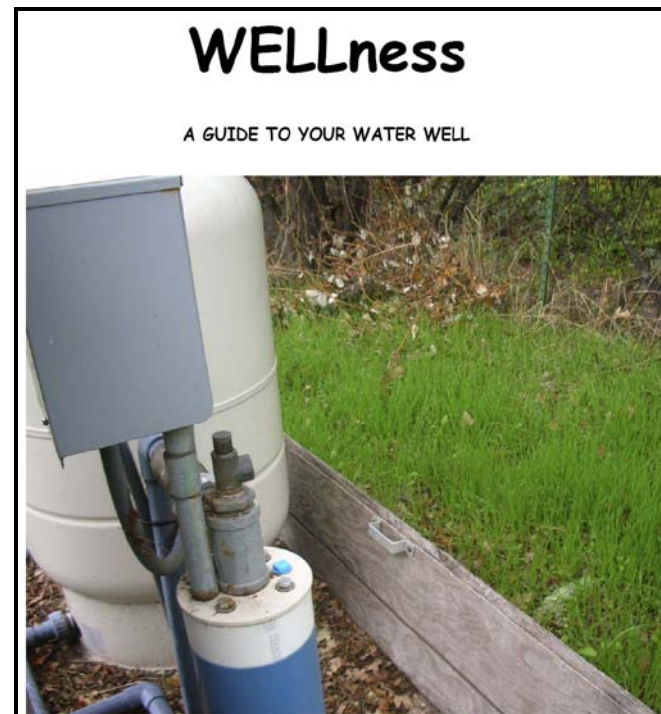
*“... locally manage, protect, and enhance groundwater resources for all beneficial uses, in a sustainable, environmentally sound, economical, and equitable manner for generations to come.”*

- Stakeholder Involvement
- Monitoring Program
- Groundwater Resource Protection
- Groundwater Sustainability
- Planning Integration



# Stakeholder Involvement and Outreach Materials

- Maintained Project Website  
([www.sonomacountywater.org/svgroundwater](http://www.sonomacountywater.org/svgroundwater))
- Regular BAP and TAC meetings
- Staff and Panel members presented at local public forums
- Hosted a Tour for International Groundwater in Agriculture Conference
- Prepared Outreach Materials
- Site Visits and Tours of Existing and Potential Groundwater Recharge Enhancement Projects
- Update of Private Well Owners Guide in Coordination with Sonoma County EHD and PRMD



# 2009 Water Conservation Awards

## ➤ Recognized for water conservation efforts by Basin Advisory Panel:

- Goodman Family
- Sonoma Ecology Center
- Sonoma Valley High School
- Benziger Family Winery
- Deerfield Ranch Winery
- Gundlach Bundschu Winery



➤ Extraordinary residential water conservation, turf removal, Water-Wisdom tours, wastewater collection and reuse systems, matching root-stock and farming methods with soil types, low water-use barrel cleaning equipment.

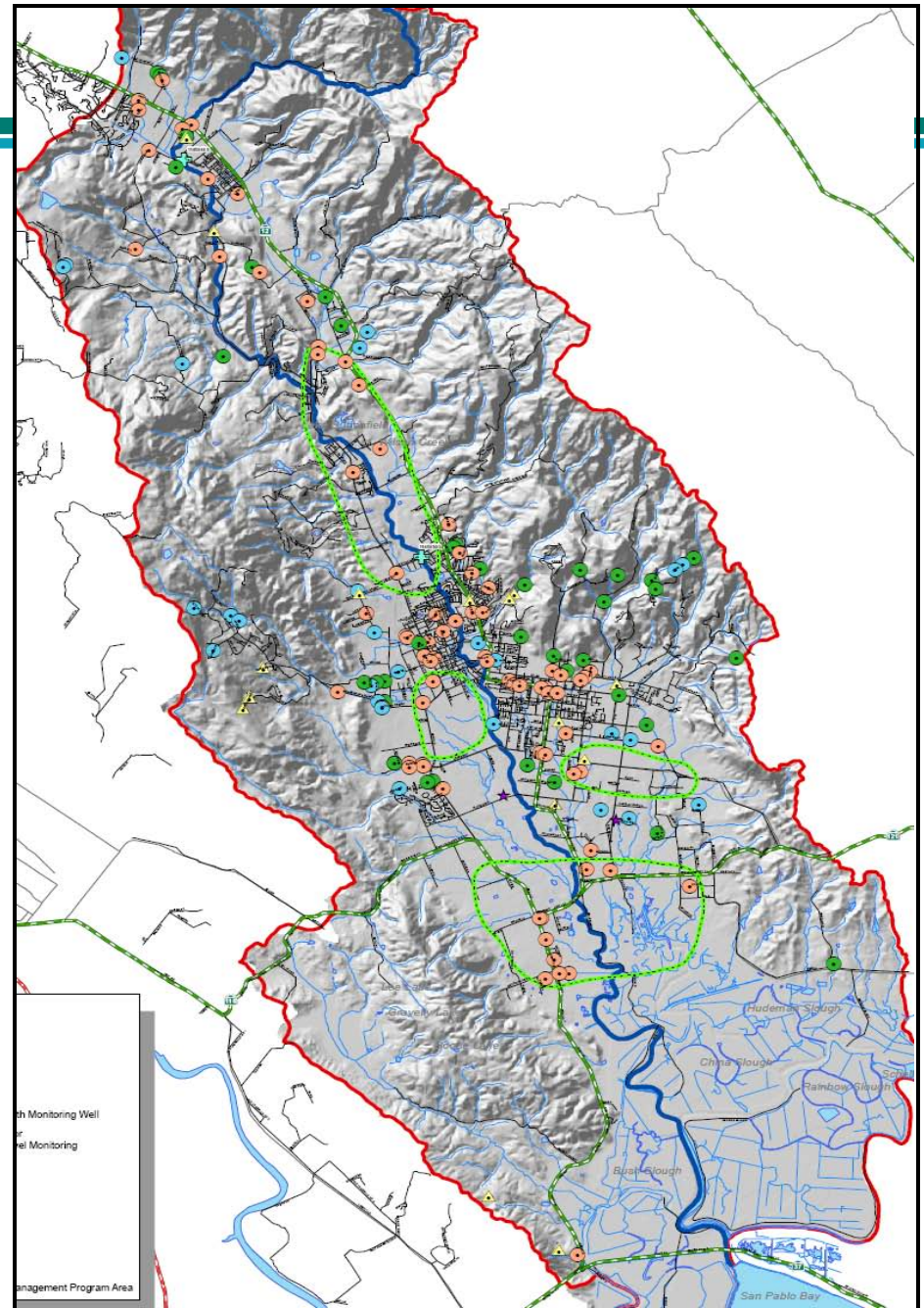
➤ Opportunity to highlight water conservation techniques

➤ Currently seeking Nominations for 2010 Awards



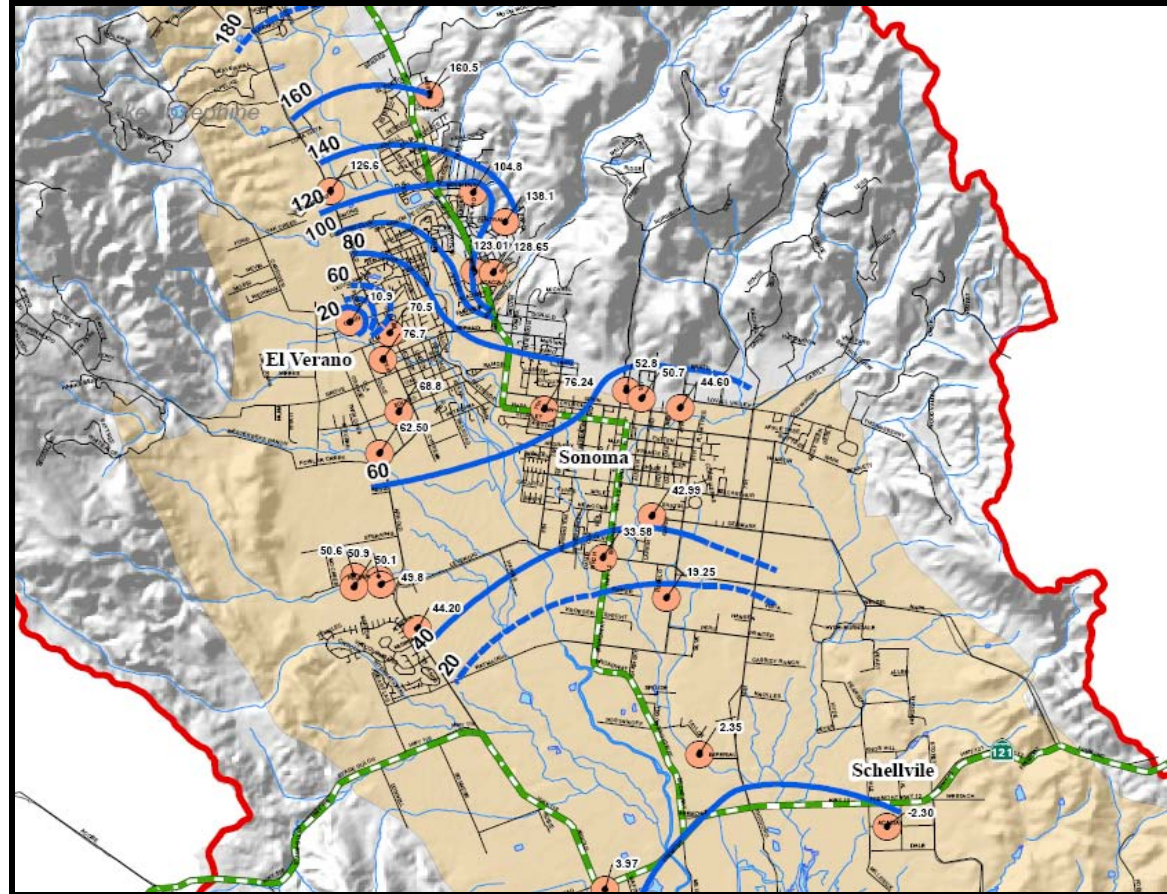
# Voluntary Groundwater-Level Monitoring

- **78** - New Wells since 2007
- **133** - Wells with Synchronized Monitoring
- **Groundwater Levels Only**
- **Track and Assess Seasonal and Long-term Trends**
- **Categorized Data According to Well Depths (Shallow and Deeper Zones)**
- **Identified Additional Data Gaps**



# Groundwater Conditions

- Shallow-Zone wells generally stable and above sea level
- Localized areas of declining groundwater levels mainly observed in Deeper-Zone wells
  - El Verano Area
  - Southeast of City of Sonoma
- Groundwater-levels are locally below sea level



# Groundwater Sustainability

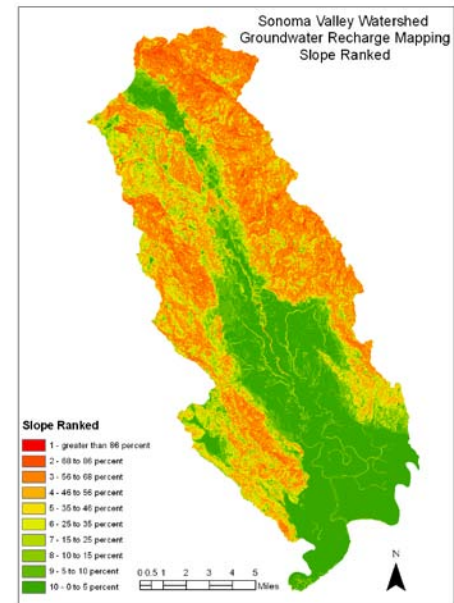
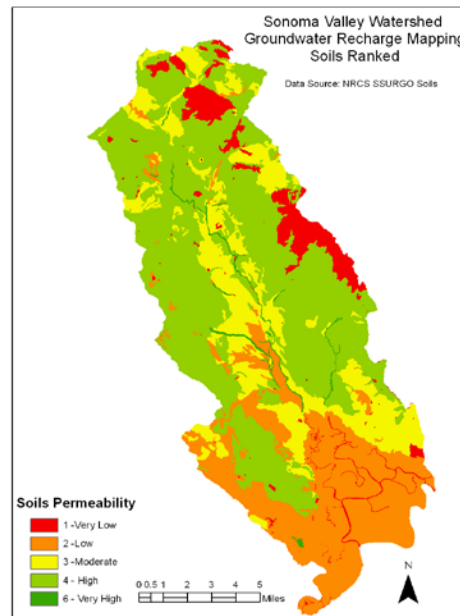
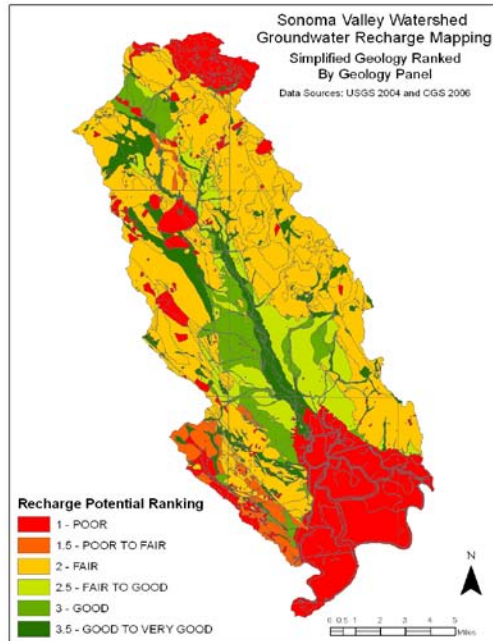
- **Guide for property owners to implement stormwater management projects that Reduce Runoff and promote Groundwater Recharge**
- **Developed by Southern Sonoma County Resource and Conservation District with input from Sonoma Valley TAC and BAP**



A Homeowner's & Landowner's Guide to Beneficial Stormwater Management



# Groundwater Recharge Mapping



- Perform Groundwater Recharge Mapping in coordination with the Sonoma Ecology Center using California DWR grant funds to identify natural groundwater recharge areas and locations suitable for groundwater recharge enhancement projects
- Integrating and ranking recharge components including, Geology, Soil, Slope, and Vegetation

# Ongoing and Planned Activities

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- **Installing Two Multi-Depth Groundwater Monitoring Wells with \$250,000 Grant received from DWR**
  - Provide geologic data, augment groundwater-level network, and monitor areas of saline groundwater.
- **USGS Performing Streamflow Measurements in Spring and Fall within Sonoma Creek and its Tributaries**
  - Further assess relationship between surface water and groundwater (Recharge and Discharge Areas).
- **Resume and Expand DWR's historical Water Quality Monitoring Program**
  - Further evaluate and track areas of saline groundwater in Southern Sonoma Valley
- **USGS to Upgrade Groundwater Flow Model to Fully Couple with Surface Water Model**

# Ongoing and Planned Activities

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- **Groundwater Banking Feasibility Study initiated in 2010 for banking excess winter water from the Russian River in the Sonoma Valley groundwater basin for storage and use in the summer or during drought periods**
  - **Coordination with the City of Sonoma and Valley of the Moon Water District and other stakeholders**
- **Initiate Watershed Planning Study to assess projects that detain excess stormwater from the Sonoma Creek Watershed to both Mitigate Flood Hazards and Enhance Groundwater Recharge**
- **Seek funding opportunities for pilot projects that can demonstrate stormwater capture and groundwater recharge at multiple scales**

# Groundwater Management Program Funding

- Local Cooperative Funding Agreement
  - SCWA, City of Sonoma, Sonoma County Agricultural Preservation and Open Space District, VOMWD, SVCSD and County
- DWR Memorandum of Understanding
  - Facilitation Services Technical Assistance – Central District Office



SONOMA COUNTY  
AGRICULTURAL PRESERVATION AND OPEN SPACE DISTRICT



# Closing/Acknowledgements

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## **BASIN ADVISORY PANEL/TECHNICAL ADVISORY COMMITTEE/STAFF**

**Milenka Bates**, City of Sonoma

**Mark Bramfitt**, SVCAC and VOMWD

**Al Bandur**

**James Cannard**

**Rochelle Campana**

**Richard Dale**, Sonoma Ecology Center

**Norm Goldstein**, Vintners & Growers Alliance

**David Goodison**, City of Sonoma

**John Guardino**, Southern Sonoma RCD

**Julie Haas**, California DWR

**Susan Haydon**, Southern Sonoma RCD

**Ned Hill**, Vintners & Growers Alliance

**Vicki Hill**

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**Clarence Jenkins**, Madrone Vineyard Management

**Bill Keene**, Sonoma County Agricultural Preservation  
& Open Space District

**Krishna Kumar**, Valley of the Moon Water District

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**Vickie Mulas**, Mulas Dairy

**Ed Nelson**

**Mark Nordberg**, California DWR

**Pete Parkinson**, PRMD

**Kathy Pons**, Valley of the Moon Alliance

**John Robb**, Mission Highlands Water Company

**Maggie Salenger-Haywood**

**Tito Sasaki**, North Bay Agricultural Alliance

**Leandra Swent**, Southern Sonoma RCD